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**COMPARATIVE CHARACTERISTICS OF THE LIVER
MORPHOMETRIC PARAMETERS OF WHITE UNBORED RATS IN
NORMALITY AND WITH THE ACTION OF 2 DIFFERENT ANTI-
INFLAMMATORY PREPARATIONS IN POLYPRAGMASIA**

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ABSTRACT

In humans, the desire to improve the effectiveness of treatment, to help the patient get rid of all the diseases that he has developed, inevitably leads to the prescription of many drugs (medicines), which in turn leads to polypragmass in the patient.

Polypharmacy is a serious problem in the healthcare system, since it is clinically manifested by a decrease in the effectiveness of pharmacotherapy and the development of unwanted adverse reactions, as well as a significant increase in healthcare costs.

The term "polypharmacy" is often used in the medical literature, but there is no universally accepted definition. For this, comparative parameters of morphometric parameters of the liver of white rats in a normal state and under the action of anti-inflammatory drugs on polypragmass were studied. The aim of the study is to supplement data on morphological and morphometric parameters of liver tissue.

Key words: polypharmacy, morphometry, morphology, inflammation.

**ОҚ ЗОТСИЗ КАЛАМУШЛАР ЖИГАРИ МОРФОМЕТРИК
ПАРАМЕТРЛАРИНИНГ НОРМАЛ ХОЛАТДА ВА
ПОЛИПРАГМАЗИЯДА ЯЛЛИГЛАНИШГА ҚАРШИ 2 ХИЛ ВОСИТАЛАР
ТАЪСИРИ ХОЛАТИДА СОЛИШТИРИШ**

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АННОТАЦИЯ

Инсонларда даволаш самарадорлигини ошириш, беморга ўзида ривожланган барча касалликлардан қутулишга ёрдам бериш истаги муқаррар равишда кўплаб дори – дармонлар (дорилар) тайинлашга – бу эса, ўз навбатида беморда полипрагмазияга олиб келади.

Полипрагмазия соғлиқни сақлаш тизимининг жиддий муаммосидир, чунки у клиник жиҳатдан фармакотерапия самарадорлигининг пасайиши ва исталмаган салбий реакцияларнинг ривожланиши, шунингдек, соғлиқни сақлаш харажатларининг сезиларли ўсиши билан намоён бўлади.

"Полипрагмазия" атамаси кўпинча тиббий адабиётларда қўлланилади, аммо умумий қабул қилинган таъриф мавжуд эмас. Шу мақсадда оқ зотсиз каламушлар жигарининг морфометрик кўрсаткичларини нормал ҳолатда ва полипрагмазияда яллиғланишга қариши дори воситалар таъсири ҳолатида солиштириши параметрлари ўрганиб чиқилди. Ишдан мақсад жигар тўқимасидаги морфологик ва морфометрик параметрлар бўйича маълумотларни тўлдириши ҳисобланди.

Калит сўзлар: полипрагмазия, морфометрия, морфология, яллиғланиш.

СРАВНИТЕЛЬНАЯ ХАРАКТЕРИСТИКА МОРФОМЕТРИЧЕСКИХ ПАРАМЕТРОВ ПЕЧЕНИ БЕЛЫХ БЕСПОРОДНЫХ КРЫС В НОРМЕ И ПРИ ДЕЙСТВИИ 2 РАЗНЫХ ПРОТИВОВОСПАЛИТЕЛЬНЫХ ПРЕПАРАТОВ В ПОЛИПРАГМАЗИИ

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АННОТАЦИЯ

У человека стремление повысить эффективность лечения, помочь пациенту избавиться от всех заболеваний, которые у него развились, неизбежно приводит к назначению многих лекарств (медикаментов), что в свою очередь приводит к полипрагмассе у пациента.

Полипрагмазия - серьезная проблема системы здравоохранения, поскольку клинически проявляется снижением эффективности фармакотерапии и развитием нежелательных побочных реакций, а также значительным увеличением затрат на здравоохранение.

Термин «полипрагмазия» часто используется в медицинской литературе, но общепринятого определения нет. Для этого изучены сравнительные параметры морфометрических показателей печени белых крыс в нормальном состоянии и при действии противовоспалительных препаратов на полипрагмассе. Цель исследования - дополнить данные о морфологических и морфометрических показателях ткани печени.

Ключевые слова: полипрагмазия, морфометрия, морфология, воспаление.

INTRODUCTION

In the modern world, there is a rapid growth in the development and introduction of many drugs that can treat the disease, which, on the one hand, improves the patient's condition, on the other hand, causes serious harm to health.

In Russian-language literary sources, polypragma is described as the simultaneous use of many drugs, including their unreasonable. In foreign literature, the term "polypharmacy" is used (polypharmacy, Greek. Poly-plural, and pharmacy is medicine). this phenomenon is most often observed in elderly patients ”, and more than 24 definitions have been given in scientific publications.

Targets and goals.

Adverse drug reactions, liver and cardiovascular pathologies are an urgent problem all over the world.

The leading role in the development of these pathologies is played by non-steroidal anti-inflammatory drugs (NSAIDs), which are one of the most widely used drugs.

Histological methods for analyzing the morphofunctional status of the liver are widely used in the diagnosis and differential diagnosis of liver diseases of various etiologies. However, their results do not always reflect the violation of the entire structure of the organ. The liver was studied macroscopically and microscopically.

MATERIALS AND METHODS.

On the basis of macroscopic and microscopic studies of liver tissue during the study, a total of 40 liver tissues were pathohistologically examined, divided into two groups. For general morphology, 2 pieces were cut from each liver, that is, a large piece and a piece 1.5 x 1.5 cm from the middle, and solidified in 10% neutralized formalin. After washing for 2-4 hours in running water, it was dehydrated in increased concentrations of alcohols and xylene, then it was embedded in paraffin and blocks were prepared. Cuts 5–8 µm in size were made from paraffin blocks and stained with hematoxylin and eosin. To study the action of polypragma in the experimental groups of white non-white rats of the experimental group, the following anti-inflammatory drugs were used:

Aspirin (derivatives of NYaQD-salicylic acid), paracetamol (derivatives of NYaQD-anilides).

RESULTS AND CONCLUSIONS

The white rats obtained for the experiment were divided into 2 groups (n = 40): I - group - (intact) control (n = 20); Group II - white rats that received 2 types of non-

steroidal anti-inflammatory drugs, paracetamol 15 mg / kg, aspirin 5 mg / kg (n = 20); Doses of this drug were calculated empirically and were administered as a solution into the stomach daily for 10 days.

From 141 days to 150 days of development, white non-white rats in the control group were injected with 0.5 ml of distilled water into the stomach through a metal tube for 10 days.

Liver sections of non-white rats were examined morphometrically, and liver parenchyma was measured with a micrometer on a hepatocyte scale using a trinocular microscope made in China. DN-107t / Model NLCD-307b (Roman, China).

Mathematical processing of the morphological data obtained during the study was carried out directly from the general matrix of the Microsoft Office data package on an Excel 7.0 Pentium-IV PC using the capabilities of the STTGRAF 5.1 program; standard deviations and presentation errors were not revealed.

Methods of variation parametric statistics were used by calculating the arithmetic mean (M), standard deviation (m), mean standard error (m), relative values (frequency,%) of the studied indicator.

The statistical significance of the measurements obtained by comparing the measurements was determined by calculating the Student's test (t) for normalizing the distribution (according to the kurtosis criterion) and the probability of error (P) when checking the equality of total variations (e - Fisher's test). Indicators and tables of critical values for optimal levels of significance (P) were used to assess the statistical significance of the calculated criteria.

Four main levels of significance were taken as statistically significant changes: high - $R < 0.001$, medium $R < 0.010$, low (marginal) - $R < 0.050$, and insignificant (unreliable) - $R > 0.050$.

Thus, the use of the above-described set of non-steroidal anti-inflammatory drugs (NSAIDs) led to the appearance of various pathomorphological changes in the liver parenchyma in rats (Fig. 1, 2). Treatment of some chronic diseases is a long-term process, and at the same time, given the high likelihood of developing toxic liver pathologies in patients, it is recommended to include hepatoprotectors in the treatment regimens of treated patients.

- These data make it possible to distinguish pathologies using a microscope and compare cells with each other, knowing the normal parameters of the liver.

- Histological methods for analyzing the morphofunctional status of the liver are widely used in the diagnosis and differential diagnosis of liver diseases of various etiologies.

- This information can be used by students of the departments of histology and pathology of medical institutions to fill in microscopic and macroscopic data in the educational process.

- Comparison of morphometric parameters of the liver

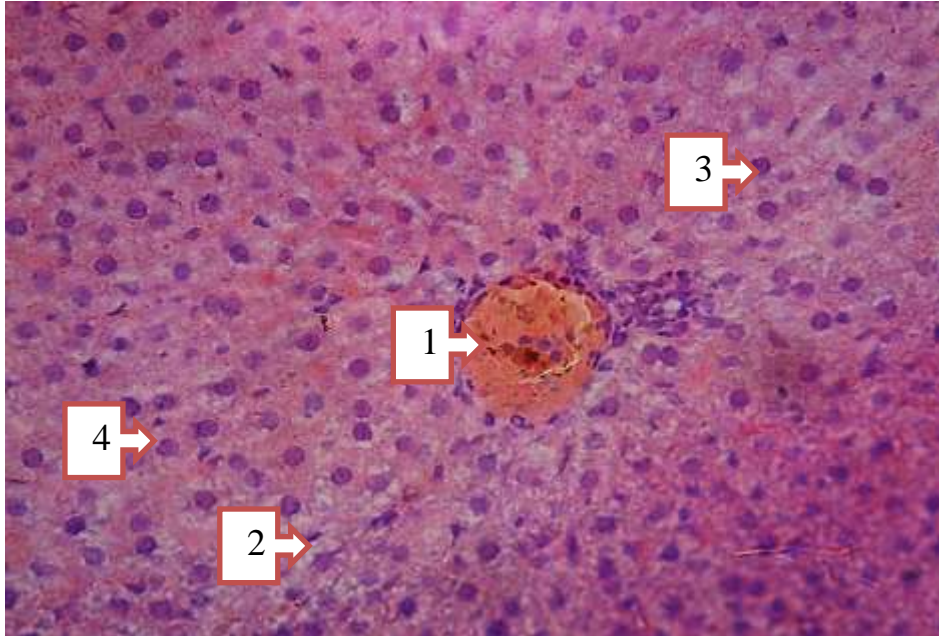


Figure 1. Central vein (1), preserved liver fragments (2), normal hepatocytes (3), degeneratively altered hepatocytes (4).

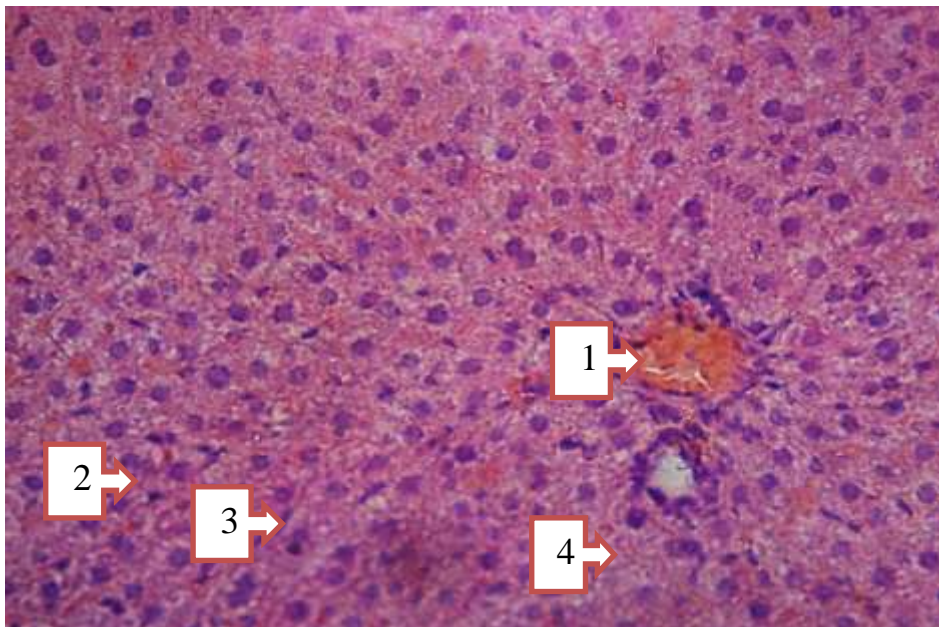


Figure 2. Central vein (1), discomplexation of liver fragments (2), degeneratively altered hepatocytes (3), lysis of some hepatocyte nuclei (4).

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